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CENTRAL INTELLIGENCE AGENCY  
**INFORMATION REPORT**

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25X1

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<b>COUNTRY</b>	USSR (Leningrad Oblast)	<b>REPORT</b>	<input type="text"/>
<b>SUBJECT</b>	Guided Missile Development and Location of NII 49	<b>DATE DISTR.</b>	24 September 1954
<b>DATE OF INFO.</b>	<input type="text"/>	<b>NO. OF PAGES</b>	10 25X1
<b>PLACE ACQUIRED</b>	<input type="text"/>	<b>REQUIREMENT NO.</b>	RD
		<b>REFERENCES</b>	<input type="text"/>

This is UNEVALUATED

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.  
 THE APPRAISAL OF CONTENT IS TENTATIVE.  
 (FOR KEY SEE REVERSE)

25X1

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1. Scientific Research Institute 49 (NII 49) was located on both sides of Gospitalnaya ulitsa in Leningrad (see sketch of location and building on pages 3&4). Source believed that laboratory and research equipment were first installed in the two hospital buildings north of the street;  after the war, to meet the increased requirements, available buildings south of the street were converted to offices and workshops; and  new buildings were planned. Source believed that, since NII 49 was not equipped for mass production, it would remain a research institute and eventually would produce experimental equipment. 25X1
2. The institute was subordinate to the Ministry of Shipbuilding Industry, Moscow. Charin (fnu) was first director and Dubrovskiy (fnu) was chief engineer (see organization chart and legend on pages 7-9). The entire work force was estimated by source at 2,000 persons; about 33 percent were women.  There were about 250 Soviet administrative and laboratory personnel, both male and female. Work was done in one eight-hour shift. 25X1
3.  The wasserfall rocket had been completed by the GEMA Plant in Berlin-Koepenick in October 1946. The copying of the computer unit was initiated at NII 49. It was anticipated that the degree of development of the Germans by the end of the war would be reached. Minor improvements were incorporated in the unit. 25X1
4. An essential development was the computer for guidance into line of sight. This unit, a further development of the former German Parallax type computer, was to

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(NOTE: Washington distribution indicated by "X"; Field distribution by "#".)

25X1

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25X1

-2-

control the angle of elevation of the Wasserfall rocket at any given period, entirely independent of the angular height of the target. This new system was based on Cartesian coordinates. [redacted]

25X1

[redacted] this project was given priority and was already initiated by January 1947. Except for several interruptions by the Soviets for experiments, the project continued until October 1951. At the same time the computer was adjusted to Soviet structural members and tubes.

25X1

5. Testing and control instruments developed for the Wasserfall included, among others, a curve drawing recorder designed in several versions. In about 1949, the Soviets ordered Engineer Langenbach [redacted] to develop and construct a training set for guide control operators to check the fixed guide figures. 25X1
  6. The computer for the Schmetterling antiaircraft rocket was redeveloped by the GZMA plant and had been accepted by a Soviet control office in fall 1946. In 1947, the Soviets ordered a new testing program to be absolved (sic) at NII 49. Simultaneously, Soviet engineers were to be familiarized with the set. This program was completed within a few weeks in 1947. The project was not resumed before late 1952. By ordering the one computer available newly adjusted, the Soviets gave their engineers a chance to familiarize themselves with the unit, apparently because they had failed to operate the computer correctly. In late December, some German experts observed these Soviet engineers in town wearing officer uniforms. [redacted] Engineer Wolter [redacted] in charge of this project. 25X1
  7. [redacted] Damping of the impulses was effected by quadri-poles without tachometer unit. The gyroscopic computer for the  $\tau$ -angle was developed by Engineer Nuernberg (fnu) [redacted] 25X1
  8. [redacted] development of a lead computer for the Rheintochter antiaircraft rocket. Work was started in October 1947 and ended in June 1948 with the construction of one set fitted with Soviet parts. The Soviets, after great initial interest in the project, dropped it after its completion although the performance of the instrument was still inadequate. 25X1
  9. Other activities at the institute included the development and construction of a computer for quadratic equations. [redacted] Engineer Nuernberg worked on improvements of the stabilized V-2 launching platform, a project which was referred to as "Sg X" or "Stabipla". A mechanical sine indicator as computer for the automatic direction finder was used as the remote control system of rockets. [redacted] Engineer Golmert (fnu) worked on the development and construction of various models of a testing set to demonstrate the so-called  $\tau$ -angle and the effect of the rotating gyroscope on rockets. 25X1
  10. Power was received from outside and transformed to 50-cycle direct current as required at the laboratories by at least four transformer stations. Gas was supplied to the laboratories by underground pipelines. Tapping points, connections, etc., were not observed. 25X1
  11. [redacted] in spite of the size of the plant, the number and type of workshops available, the work force, and the construction of a new large plant building, there would be no series production of instruments at NII 49 in the near future. With the installations available, the institute was equipped for the production of models and experimental series of some of the instruments developed there. [redacted] 25X1
- [redacted] Klaritskiy (fnu), chief of the computer department, at the beginning of construction work on the new large building in about summer 1952. Klaritskiy said that NII 49 was to become the largest institute of the USSR. 25X1

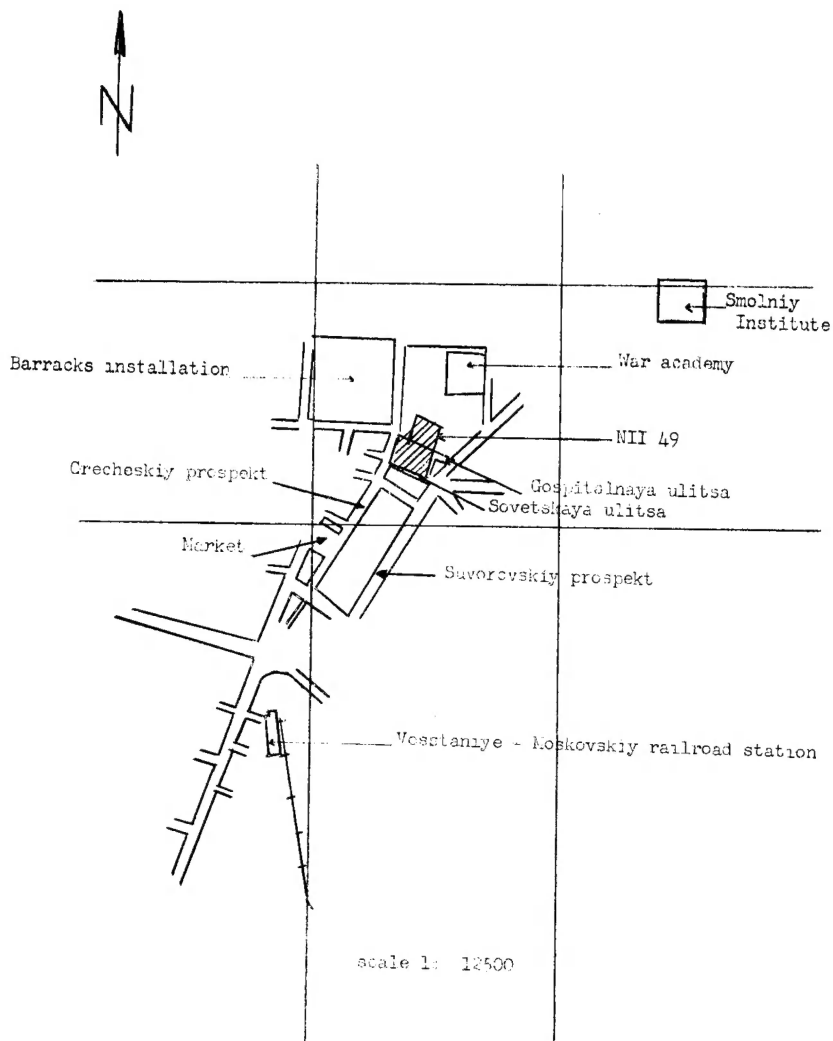
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25X1

3-

Location Sketch of NII 49 in Leningrad



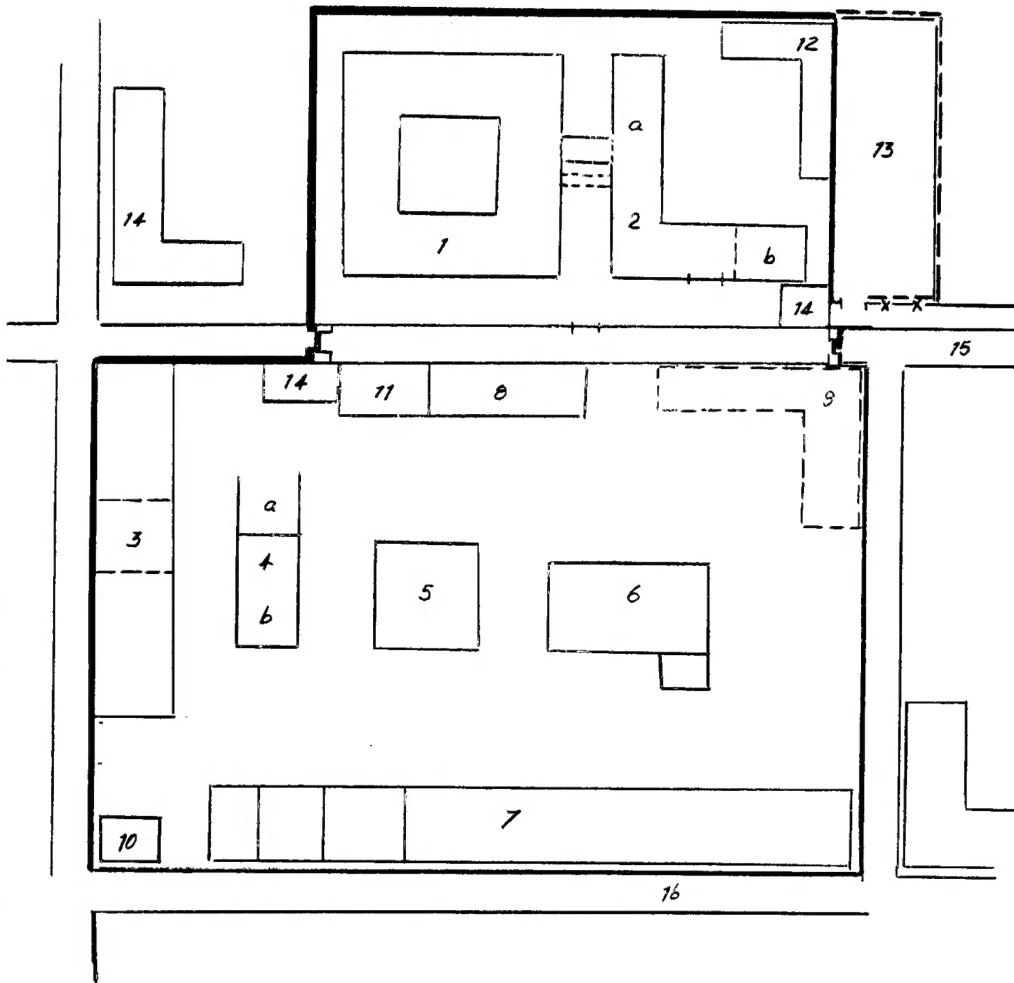
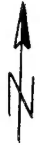
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4.

Sketch of NII 49  
(Legend on next page)



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-5-

Legend to III 49

1. Plant Management Building -- The basement housed dressing rooms in the former excellent air raid shelters which still had the beds of the former hospital inmates. The underground connecting passage to Building No. 2 could be sealed with steel doors with rubber packing. The ground floor housed the mess hall for administrative personnel and a stock room for finished instruments.

The second floor housed the offices of first director Charin, of the chief engineer and first manager Dubrovskiy, the MVD personnel office, the office of the business manager, conference rooms, reception rooms of the plant director, and, allegedly, laboratories of Soviet engineers.

2. No information was available on the basement or third floor. The first floor housed offices and Soviet workshops and, in two former apartments, laboratories. The second floor housed the entire institute library in the northern wing (a) and, until the summer of 1949, the laboratory of source in the east wing (b). Source assumed that the Soviet laboratories worked on the development of radar sets.
3. Two-story brick building. The ground floor housed a carpenter shop and a vehicle repair shop. The second floor, apparently constructed by German PMs after the war, housed the work places of the German experts after the summer of 1949, and the administration of the department for computers and control devices. For details, see sketch on page 6.
4. Single-story building with plating shop and machine-repair shop.
5. Old brick building housing foundry with Soviet personnel.
6. Two-story building constructed after the war; manufacture of precision parts; a dispensary in the annex. No information was available on the second floor.
7. Large production shop with lathes, milling machines, etc., and a stock room for large metal parts. The western section of the building had a second floor and housed a nickel plating shop. Large metal (sic) processed here was possibly for frames for radar sets or launching platforms and transport devices for rockets.
8. Former apartment house with Soviet administrative offices on all three floors.
9. Concrete building under construction. By February 1953, the bare structure of the ground floor was completed. The ceiling was very high and source concluded from the iron girders in the outer wall that high machines or cranes would probably be installed. A Soviet construction superintendent stated that one million rubles had been allotted for this construction project.
10. Single-story welding shop, an old brick building.
11. Paint shop.
12. Garages.
13. Timber piles.
14. Two gate-keeper houses.
15. Gospitalnaya ulitsa.
16. Sovetskaya ulitsa.

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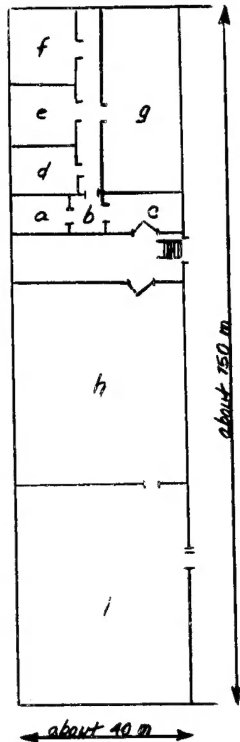
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25X1

-6-

Sketch of Building 3, NII 49

(see preceding sketch)



*not to scale*

Legend to Building 3, NII 49

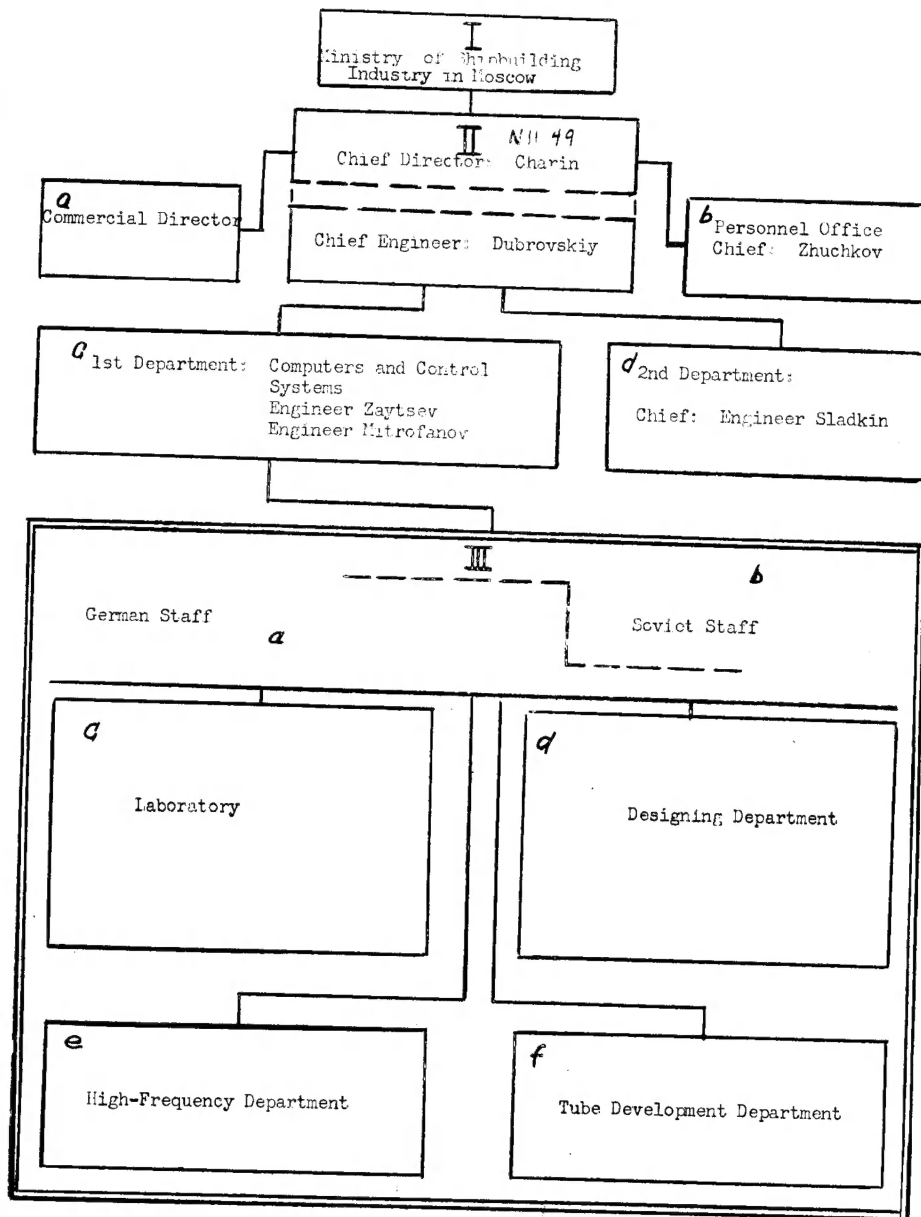
- a. Office of Soviet Engineer Klaritskiy
- b. Dressing room
- c. Antechamber
- d. Typing room
- e. Office of German chief, Graduate Engineer Mumaert, Laeknaeker, Dr. Kindler, and Dr. Wolff
- f. Designing office of Langenbach and staff
- g. Laboratories, about 15 by 35 meters, of source and other development engineers
- h. Soviet control office
- i. Soviet calculating office, with extensive calculations

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25X1

-7-

Table of Organization of NII 49



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Legend to Table of Organization

## I Ministry of Shipbuilding Industry in Moscow

## II NII 49

First director: Charin (fnu).

Chief engineer: Dubrovskiy (fnu)

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a Business manager.

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b Chief, Personnel Department: Zhuchkov (fnu).

c 1st Department; computers and control systems.

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Chief: Engineer Zaytsev (fnu)

Deputy chief: Engineer Mitrofanov (fnu)

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d 2nd Department: No information available.

Chief: Engineer Sladkin (fnu).

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## III The German Organization

a German staff

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Chief: Graduate Engineer Krumm

Assistant: Engineer Lashchakov (fnu)

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Dr. Boegel (fnu)

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Dr. Boegel's secretary, Mrs. Bielecke, nee Schoenhoff, was replaced by Mrs. Endert (fnu), Engineer Endert's mother, in about 1950.

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b Soviet staff

Engineer Klaritskiy (fnu)

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Engineer Kats (fnu).

Mrs. Churina (fnu)

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c Laboratory

Chief: Dr. Kindler.

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Engineer Bielecke.

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Engineer Wolter.

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25X1

25X1

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25X1

-9-

Engineer Hessler, [REDACTED]

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Engineer Nuernber, [REDACTED]

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Engineer Golmer, [REDACTED]

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Engineer Adler, [REDACTED]

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Graduate Engineer Ruedlir, [REDACTED]

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Engineer Ender, [REDACTED]

25X1

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d Designing department

Chief: Engineer Langenbach, [REDACTED]

25X1

25X1

Engineer Bachei, [REDACTED]

25X1

25X1

Engineer Roth, [REDACTED]

25X1

Engineer Boeh, [REDACTED]

Engineer Nielbock, [REDACTED]

e High-frequency department

Chief: Dr. Wolff

Engineer Thoennessen, [REDACTED]

f Tube department

Physicist Wild, [REDACTED]

Source stated that there might have been more departments; one branch office was repeatedly mentioned [REDACTED] No further information was obtained. The purpose and work of the second Department under Soviet Engineer Sladkin was not determined. Source assumed that the department was in charge of the plant conversion to the production of experimental series.

25X1

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